

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-069041  
(43)Date of publication of application : 25.03.1991

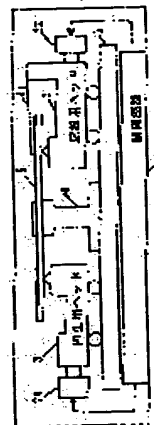
(51)Int.Cl. G11B 11/10

(21)Application number : 01-204658 (71)Applicant : HITACHI LTD  
(22)Date of filing : 09.08.1989 (72)Inventor : KAKU TOSHIMITSU  
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**(54) OPTICAL RECORDING AND REPRODUCING DEVICE****(57)Abstract:**

**PURPOSE:** To realize a high recording density by recording at the recording pitch of  $1/2 - 1/4$  of a recording wavelength by the magnetic field modulation for recording and reproducing photomagnetically with the use of a light source having the wavelength of about  $1/2$  of a recording light source for reproducing.

**CONSTITUTION:** A recording optical head 2 and reproducing optical head 3 are separately equipped and the information bit or domain of  $1/2 - 1/4$  of the wavelength of the recording light source is recorded on a photomagnetic disk 5 by a magnetic field modulation method. For the reproduction of the information, a semiconductor laser same as that of the recording light source and secondary higher harmonics generating element are used and reading is performed by the light source of  $1/2$  of the wavelength of the recording light source. Consequently, a recording density becomes more than two times compared with the case of recording and reproducing with the recording light source and a high density recording can be performed.

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[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

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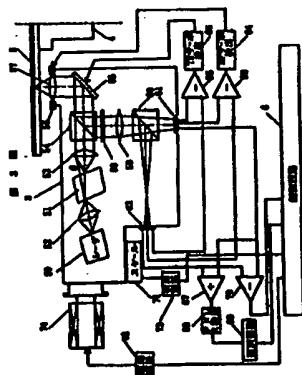
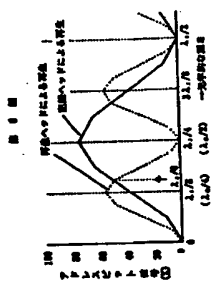
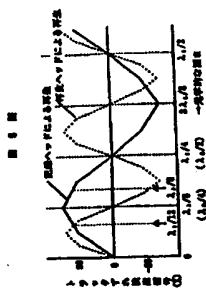
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